

# **EXHIBIT 5**

## **[FILED UNDER SEAL]**

## DRS and RPO interaction in Simulation

Using the same methodology as outlined [here](#) (cr/131764233) we want to understand the queries that fall in the dynamic region of what is the pricing rule that is causing them to fall in the dynamic region. More specifically, we want to measure the interactions between DRS and RPO. We obtain the breakdown using the following `plx` script.

This analysis seems to be over-estimating the percentage of queries in DRS, but ignoring that for now, we only a low percentage of RPO queries seems to be falling in the dynamic region, only around 5% of the queries.

Percentage of Impressions by *pricing\_rule* vs *is\_dynamic*. Restricted to RTB buyers, second price auction *transaction\_type*

	FALSE	TRUE	Grand Total
COMPETING_CANDIDATE			
DYNAMIC_RESERVE			
GLOBAL_RESERVE			
NONE			
PUBLISHER_RESERVE			
THIRD_PARTY_RESERVE			
Grand Total			



Revenue percentage by *pricing\_rule* vs *is\_dynamic*. Restricted to RTB buyers, second price auction *transaction\_type*

	FALSE	TRUE	Grand Total
COMPETING_CANDIDATE			
DYNAMIC_RESERVE			
GLOBAL_RESERVE			
NONE			
PUBLISHER_RESERVE			
THIRD_PARTY_RESERVE			
Grand Total			

One of our goals is to understand how many more queries we are pushing to the dynamic region by making the RPO model more aggressive.